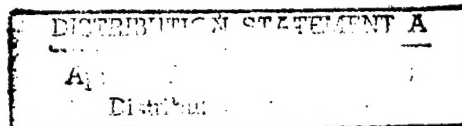




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AIR UNIVERSITY  
**AIR FORCE INSTITUTE OF TECHNOLOGY**

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**AN ANALYSIS OF A-76 STUDY EFFECTIVENESS**

**THESIS**

**Joshua M. Kovich, First Lieutenant, USAF**

**AFIT/GTM/LAL/98S-5**

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**THESIS**

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**Joshua M. Kovich, B.A.**

**First Lieutenant, USAF**

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**Abstract**

As the Air Force budget continues to decrease, A-76 studies have become an increasingly popular method to cut costs. By cutting costs, money is then freed up for other requirements such as force modernization. Care must be taken to ensure the process is working as designed and the actual savings are in line with projections.

This thesis examines an A-76 study recently conducted at Wright Patterson AFB, OH. The focus is to evaluate the costs used in the decision and how the decision would have been affected by changes in these costs. The results indicate that some costs are incorrectly included or inflated. This means it may cost more to outsource the function than estimated. Thus, the actual savings might not be as large as the projected savings. In fact, there may not be any savings at all. This result has serious implications for the future. If savings estimates are included in future year defense budgets and the savings don't materialize, the Air Force may be unable to enact the force modernization plans as effectively as desired.



## **AN ANALYSIS OF A-76 STUDY EFFECTIVENESS**

### **I. Introduction**

#### **Background**

Budget constraints imposed on the Department of Defense (DoD) have forced the services to search for ways to perform their missions in a more cost-effective manner. One tool that has seen increasing use to reduce spending is to outsource or privatize many support services. In fact, between FY1978 and FY1994, the DoD completed 2,268 cost comparisons with another 1,418 canceled (13:x). Clearly, this has become an important part of the way the DoD does business. Some assumptions behind the outsourcing movement are 1) the private sector is more efficient than the military, and 2) outsourcing increases competition (9:iii). These two elements have been absent from military organizations based on the argument that unique mission requirements precluded the use of private firms. However, this is no longer felt to be the case. The military is now trying to introduce these two elements into the way it does business. The DoD's goal is to introduce competition in order to decrease costs while improving the performance of the services provided (3:3).

The Air Force has moved to the forefront of the DoD in contracting out support functions by aggressively pursuing outsourcing opportunities. This effort has met with some apparent success. For example, between 1978 and 1994, the Air Force conducted 733 competitions resulting in estimated annual savings of \$560 million dollars (10:3). The ultimate goal is to use these savings for modernization. In fact, the deputy secretary of defense has issued a memorandum asserting none of the DoD components would have

their budgets reduced due to the savings they realize through outsourcing. Rather, the savings should be used for modernization (3:2).

The primary tool for analyzing outsourcing opportunities is the Office of Management and Budget (OMB) circular A-76 "Performance of Commercial Activities". The circular has its roots in the Eisenhower administration and was first published in 1966 with updates in 1979, 1983, and 1996. The purpose of the circular was to provide guidelines for outsourcing government functions and streamline the cost comparison process necessary to determine if a government function should be outsourced or not (10:1). These cost comparisons have since become known as "A-76" studies.

The DoD has identified support functions as non-mission essential. As such, they have come under increasing scrutiny for outsourcing. Some examples of support functions include commercial activities (travel office, chow hall, etc...), depot maintenance, finance and accounting, Army aviation training, surplus property disposal, and parts distribution (3:5). One of the primary reasons support functions have been singled out is the cost associated with providing them. For example, in FY1996, the DoD spent and estimated \$93 billion on support operations and maintenance (3:1). The DoD estimates that by 2003, \$2 billion in savings can be realized by contracting out various support functions (26:18). Another reason for outsourcing support function is the lower risk involved in losing organic support capacity versus organic warfighting capacity. For instance, the combat capability of a unit will not be degraded if a contractor performs military housing maintenance.

As stated earlier, the primary purpose of an A-76 study is to reduce the costs associated with providing services. Thus the government must ensure it is actually

saving money as a result of outsourcing initiatives. Without verifying savings, it is difficult if not impossible to determine the ultimate success or failure of the A-76 programs. Also, by failing to identify when outsourcing has succeeded or failed, the government has missed many opportunities to learn from past successes or mistakes.

Recently, cost savings associated with outsourcing initiatives are being subjected to increased scrutiny. There are several reasons for this. First, in the past, estimated cost savings have been treated as actual cost savings. Actual savings have rarely been tracked, making savings determinations difficult if not impossible. Second, when savings have been checked, they have been much less than expected. There have even been cases when the contracted work cost more than it would have to do organically (26:8). Clearly, the outsourcing decision should be approached carefully to ensure the DoD is making the right choices. Also, since the purpose of an A-76 study is to save money, then the true measure of how effective an A-76 study is how much money it saves. Since the accuracy of the cost savings figures is questionable, the DoD has no way of knowing how effective the current process is (30:8).

### **Statement of the Problem**

The A-76 process needs to be examined to determine if it is working as it was designed. Is the Air Force actually realizing the savings it expects from outsourcing, or are there flaws in the process that need to be corrected? While many facets of the A-76 process deserve critical analysis, the focus of this research is to determine whether or not the appropriate costs are being used in the outsourcing decision. Specifically, this thesis will look at all cost categories used in an A-76 study to determine if they provide the

appropriate information to decision-makers so that the Air Force realizes the maximum savings.

To look at all applications of the A-76 process would be a monumental task. Therefore, this thesis will carefully examine the A-76 process as it has been applied to one wing level support function. Additionally, since the cost used to make the outsourcing decision form the basis of the A-76 process, they will be the focus in this thesis.

### **Research Objectives**

The primary research objective is to determine whether or not the appropriate costs are being included in A-76 studies. Since the costs that are used form the basis for making the outsourcing decision, it is imperative that the correct costs are used. Without it, incorrect decisions can result (12:6).

In order to examine the research problem, a case study will be conducted of a recent A-76 study conducted at Wright-Patterson AFB (WPAFB). This study was conducted to determine if base-operating support should be outsourced at WPAFB. It encompassed a variety of functions including transportation, supply, and transient maintenance. The primary reason this A-76 study was chosen was the fact that it was recently conducted. This will provide valuable insight into the process as it is currently conducted. Additional unsuccessful efforts were made to obtain similar information from other bases. Difficulty in locating the individuals responsible for this information made this task impossible.

Several aspects of the WPAFB A-76 study will be examined. First, are all costs currently included in this A-76 study appropriate, or are some costs being included that

should not be? Conversely, are costs not being included that should be? Should the A-76 process consider additional costs? Investigating these issues should provide a good basis for determining whether or not the Air Force is getting a good deal when it outsources. Moreover, the answers will provide added guidance for performing cost comparisons in the future.

### **Importance of the Research**

As the Air Force continues to pursue outsourcing as a source of savings, it must ensure that it is getting what it is expecting. This research is a key step in analyzing the A-76 process and more importantly, how the A-76 process is applied. By focusing on one functional area, insight can be gained on more appropriate ways to conduct A-76 studies in other functional areas. This will help the Air Force determine if it is, in fact, doing a good job of using the appropriate cost data, and if not, what corrective action can be taken to ensure it learns from its mistakes.

Support functions have been and will continue to be the subject of outsourcing initiatives. Therefore, care must be taken to ensure the Air Force gets a “good deal.” This research provides a basis for evaluating the quality of past A-76 studies with the goal of improving the future applications of A-76 studies. While this thesis is limited to one A-76 study, the results will also be useful in conducting similar analyses of contracting initiatives for other areas. Focusing on one study can identify areas that make general process improvements possible. Additionally, the focus is on areas of costs. As these areas aren’t unique to support functions, the findings will also be transferable to other areas.

## **Thesis Overview**

This thesis is organized into five chapters. The current chapter provides the relevant background information. Chapter II will provide the reader with a thorough literature review that will lay the foundation for this thesis. The research methodology will be outline in Chapter III. Chapter IV contains the data used to answer the research questions, and Chapter V contains a detailed discussion of the conclusions to the research questions. Additionally, Chapter V will include some suggested areas for future research in the A-76 cost comparison areas. These suggestions are being provided in an effort to encourage further research into possible areas for improvement in the outsourcing techniques used by the Air Force.

## **II. Literature Review**

### **The Private Sector**

Outsourcing is not a new concept. For example, many private firms have been outsourcing various transportation functions for a long time (26:24). Most companies have always found it was more profitable to ship their products using vendors such as UPS, FedEx, or other shipping companies. A good example of this recent trend is Reader's Digest. Reader's Digest now utilizes a third party logistics (3PL) company to handle all of their inbound and outbound logistics. The results have been remarkable. Transportation costs have been reduced by 5-10%, bigger postal rate discounts have been realized, and a \$100,000 reduction in expedited freight costs are all positive outcomes resulting from hiring a 3PL provider (15:28). Dramatic improvements similar to this have led many private firms as well as the government to begin outsourcing some or all of their support functions with an eye towards cutting costs. However, a carefully planned approach is necessary for establishing a successful relationship with a contractor. There are intricate issues involved in this complex decision. A brief examination of some general guidelines utilized by private firms is very informative and forms a basis for the discussion of this topic. After looking at how private firms outsource, a thorough examination of governmental (specifically Air Force) guidelines will outline the framework within which outsourcing decisions are made.

While each outsourcing decision is different, some general guidelines do apply. First, a company needs to decide if they should contract out certain functions. Sometimes the solution is improving operations within the firm rather than outsourcing (17:42). That

is, the firm may be able to achieve the desired improvements through traffic flow analysis and process improvement. This type of effort is commonly known as process reengineering. Once the decision has been made to evaluate potential outsourcing alternatives, a firm must be selected that meets the needs of your company. This can be a daunting task. For example in 1996, more than 400 third party logistics companies existed with more joining the ranks every year (26:24). Finally, a firm must carefully monitor the performance of the contractor to ensure acceptable levels of service are being met or exceeded.

How does a company decide what functions to consider for outsourcing? Prior to undertaking the outsourcing process, a firm should establish their core competencies. The recent movement to outsource is based on the belief that companies should concentrate on their core competencies and contract out functions other companies can do better. Managers need to decide whether or not their staff could better handle the function(s). Is it possible to change your current operations or achieve a high level of proficiency in house? Solutions can often be found within the company rather than through outsourcing. Also, managers should determine if they feel comfortable letting a contractor handle parts of its operations. Managers often feel more comfortable working in systems they're familiar with even if inefficiencies exist. If they don't feel comfortable losing a certain amount of control over the process, then outsourcing is not the answer (17:40). An important point to remember is that outsourcing is not for everyone. If a function is a significant part of a firm's core competencies, then it shouldn't be contracted.

A logical approach to determining whether or not to outsource is to establish a company's goal for balancing customer service with logistics costs. For example, a



thorough analysis of the logistics costs required for a certain level of customer service can be very insightful. It may be very apparent that significant cost savings can result from improving your logistics pipeline. At the very least, these costs will be necessary for making any outsourcing decision. Without accurate costs, the basis for making the decision and evaluating the results will be flawed. There are some general guidelines concerning the balance of costs and customer service. The objective is to match the required customer service level with the most cost-effective method for achieving that level of customer service. That is, a firm should determine the appropriate level of customer service and then find the lowest cost for meeting that customer service level (4:34).

If the firm decides it should contract for some or all of its outsourcing candidates, it must then decide what functions they should contract out and what they should keep in house. A thorough analysis of the costs of your functions forms the basis for this decision. Any function that you can realize significant cost saving through utilization of a contractor should be considered. However, if customer service is a primary concern, an evaluation of cost savings in relation to customer service level will be beneficial. This will help the firm determine if the appropriate level of customer service can be obtained through outsourcing. Another important consideration is whether or not your company can reengineer current operations to achieve greater efficiency (4:34-35). Finally, remember that a firm should never outsource a core competency. If a company feels it can outsource a function that is believed to be a core competency, then the function is not a core competency.

Now that a firm has decided to evaluate outsourcing opportunities, they must then find a company that can provide the required services. The search for the appropriate contractor actually began while determining what functions to outsource. Specific objectives should be derived from the analysis of costs and customer service level requirements evaluated earlier. These will provide the basis of the contractor selection (4:36). The objectives should be used to create very explicit requirements outlining exactly what you expect to achieve by hiring a contractor.

Armed with explicit requirements, a decision must be made as to what type contractor is needed. In logistics, third party logistics companies provide a broad range of services. First, there are asset-based providers. Asset-based providers utilize a company's assets to provide transportation support (21:33). Essentially, asset-based providers replace the current transportation management staff. This is the type of contractor most often used by the Air Force when contracting out base level transportation functions. The next type of provider is the management based firm. These firms specialize in providing management of various functions through advanced software and information systems (21:33). Technology is utilized to increase visibility throughout the supply chain vastly improving the information available to management for decision making. In fact, information management can be a key factor in differentiating providers (7:28-29). Management firms also utilize operations management specialists to maximize system efficiency (25:25). The final category of contractor is the integrators. Integrated service providers blend a variety of services together to provide a custom solution to the customer (21:33). Each type of contractor is appropriate in different situations. For companies looking to reduce their logistics staff,

asset-based firms may be appropriate. Management based firms contract out for most of the services but provide logistics management over any part of the logistics process. Finally, the integrated providers are most useful for companies requiring highly customized services based on their specific situation (21:33).

Firms have a variety of reasons for outsourcing. Some simply lack the capital to acquire the assets necessary to perform the functions in-house. By outsourcing, they can minimize the capital necessary to perform these functions. Other firms are looking to outsource a specialized function. For example, a chemical firm may want to outsource transportation of its hazardous materials. For this type of requirement, there are logistics providers that cater to specialized market segments. They've become very proficient at providing logistics services to a certain industry. Finally, some contractors provide custom solutions to meet differing customer requirements (25:25). For example, certain third party firms specialize in international logistics. This allows firms to expand into global markets without creating a new logistics system just to serve the new market.

The next step in picking a provider is to match your requirements with the type of service provided by different vendors. Both the "depth and breadth" of services should be considered (4:36). The search begins by gathering as much general information about different companies as possible (4:38). This information can then be used to narrow the field down to companies who appear to be able to provide the services you require. The next step is to determine if the company has the resources necessary to support your operation. Are they big enough to handle the workload? Do they have the equipment and facilities to do the job? Do they have the business experience you desire (4:36)? A contractor may have been in business a long time, but do they have any experience

providing the services you need, in the market(s) you serve, at the level of customer service you desire? Answers to all of these questions are vital to aid in choosing the appropriate partner.

Now that the list has been narrowed down to a group of firms who appear to be able to meet your needs, a formal request for proposals should be issued. The proposal should contain specific information on capabilities of the contractor (4:38). A variety of information should be included in the formal proposals. First, what services will be provided? Both parties should have a clear understanding of all requirements. Can the service provider support growth into other markets? A good plan to cover expansion will ensure the contractor can support future growth. Finally, how will information be passed between the companies? Good information flow can make or break the relationship (26:26). This specific information should clarify the roles both the client and the contractor will fill.

A key element of the proposal is the pricing method. In logistics, numerous methods of pricing services exist. One of the most popular methods in the first year or two is gainsharing. Under this pricing scheme, the vendor shares in the savings generated from improving the overall logistics process. One drawback to this method is most of the system improvements may be realized in the first several years after the vendor improves operations. After this, most improvements are relatively small. Thus, there would not be much savings to share. Another potential problem associated with the gainsharing pricing method is that some improvements and reengineering efforts may incur high costs in the beginning. Thus, the actual savings may not be realized for several years. Therefore, there would be no savings to share in the first few years of the contract.

Another method for pricing is cost-plus. As the name implies, the cost for services provided are paid for plus the profit required by the vendor. Under cost-plus pricing, the vendor has no reason to improve operations since the costs incurred in doing business are automatically paid under the terms of the contract.

A final method for determining price is transaction based pricing. This method is most appropriate when service is infrequent (27:29). The primary goal in choosing the appropriate pricing method is to eliminate uncertainty in logistics costs. A realistic expectation of cost savings and service improvement needs to be reached before entering into any contract (20:32). This will protect both parties from confusion after the contract is signed.

Finally, the proposal should contain information on how problems will be handled. To begin with, liability issues need to be clarified (26:26). A good legal agreement will ensure each party knows who is responsible for what. Additionally, a method for resolving disputes should also be included in the proposal. Problems will arise during the course of the contract life. Clear, reliable lines of communication can make or break the relationship. An exit strategy should be written in the proposal in case differences can't be resolved. While this may seem pessimistic, it may save trouble should the relationship sour, and you're forced to reestablish logistics services either with another contractor or in-house (4:42).

Now that a firm has seen several proposals, the field should be narrowed to reflect the companies that can best meet the firm's logistics needs. The next step is to thoroughly investigate each potential contractor to determine if they exactly meet the requirements. This can be done best by visiting each company and asking for a list of

references. Use these references to determine that the contractor is as good as it claims (26:24). Careful attention needs to be given to the actual ability to provide the required level of service. For example, a company may be able to provide warehousing, transportation, customer service, and purchasing. However, they may have little or no experience in some or all of these areas (21:34). Varying levels of experience will exist. Careful consideration should be given to ensure the provider chosen has the desired experience level (4:36-37). For example, how well can the contractor handle surges and seasonal fluctuations? Asking a contractor to provide references and to demonstrate their capability is a good way to evaluate how competent they are (4:38). A company that can't demonstrate capability might not be able to provide the service when and where it is needed. Finally, do the firm and vendor have a similar corporate culture? A good match will facilitate a positive working relationship. Problem resolution, information flow, and overall efficiency can be improved if both firms involved have similar corporate cultures (4:38).

When outsourcing, managers should be aware of common mistakes that can occur. First, remember the big picture. Be sure to include all the affected functions. Don't make cuts in one area that will be detrimental to the system as a whole. All areas play a vital role in the overall success of the project. Next, make sure the vendor has all the information necessary to do their job. Holding back critical information can have disastrous effects on the whole system. Additionally, be aware that personnel may see the contractor as a threat to their job. This can create a great deal of resistance to the outsourcing project. Finally, only hire a provider to do what is needed. Don't pay for something that isn't required (22:36).

Armed with this information, the appropriate contractor can be chosen. By using a logical and thorough approach, a manager will go a long way towards ensuring the success of the relationship, and a positive relationship is necessary to reap the full benefits of outsourcing some or all of the company's logistics functions. Now, however, performance must be closely monitored. In the early stages, a slow implementation of the new logistic company is useful for debugging the system. Performance metrics are vital for evaluating how well the system is running. Additionally, giving credit and blame when appropriate is necessary. Without recognizing successes and problems, optimum system performance can't be reached. Finally, tying compensation to performance will motivate the contractor to strive for system improvements and meet contract requirements (4:40).

Clearly, the process of outsourcing can be a very complicated project. However, by taking a logical approach, the process can be simplified. First, the company should determine whether or not they should consider outsourcing. If a function is part of the firm's core competencies, the function should never be outsourced. However, if a company determines it could benefit from outsourcing, a cost analysis should be done to determine the current costs associated with various levels of customer service. This forms the basis of determining the outsourcing requirements. After determining the required services, general information should be gathered from various potential contractors. Specific proposals should be requested from those companies most closely matching your requirements. A detailed background check is needed to ensure the contractor chosen matches your firm's requirements. Finally, once a firm is chosen, oversight is necessary to ensure all requirements are being met. While this process may

seem complicated, it can be well worth the effort, as can be seen from the Reader's Digest example.

### **The United States Air Force**

The Outsourcing Guide for Contracting provides an excellent overview of the outsourcing process within the Air Force and is the primary source of information for this section. In this instance, outsourcing means contracting with private firms to provide commercial activities to the Air Force. However, functions should only be outsourced when it is more cost effective to do so, and mission effectiveness is not compromised (1:1).

There are four basic steps in the outsourcing decision. They are: 1) Identify Functions, 2) Inventory Functions, 3) Review Functions, and 4) Compete Functions. The first three steps are all performed at the headquarters level. Step four is the actual cost competition and is a very complicated process.

**Step 1:** HQ USAF/PER identifies functions that can be contracted out and those that can't. All Air Force functions fall within one category or the other. This step is equivalent to private firms determining which functions are part of their core competencies and which functions aren't. At this point, it is very important that the Air Force consider the impact outsourcing a function will have on surge capacity. The impact on surge capacity needs to be considered prior to determining whether or not the function should be outsourced. Any function that can be outsourced is known as a commercial activity (CA). Some CAs which are commonly outsourced include:

- Appliance/special equipment maintenance
- Asbestos removal



- Pavement marking
- Oil/water separator maintenance
- Cleaning sewers/tanks/ducts
- Work orders over 250 man-hours (SABER) (1:5)

Some CAs that should be cost compared are:

- Painting
- Military family housing maintenance
- Medical facility maintenance
- Grounds maintenance
- Snow removal
- Refuse collection
- Furnishing management
- Utility plant operations
- Civil Engineer Supply Stores (GOCESS/COCESS) (1:5)

**Step 2:** Major commands and servicing manpower offices review all current CAs within their area of responsibility and identify which are being currently performed in-house or outsourced. If a CA is being performed in-house, there must be a reason given. Some common reasons for performing a CA in-house include are readiness and public law.

**Step 3:** Major commands review all in-house CAs. If there is no good reason for leaving the function in-house, a cost competition must be performed. The most common reasons given for performing a commercial activity in-house are fall into the following general categories:

- National Defense

- Critical Military Skill
- Lower Cost
- Base closure, realignment, or consolidation
- Prohibited by Law, Executive Order, Treaty, International Treaty (1:4)

If a CA can't be justified with any of these reasons, then a cost competition must be performed (1:4-5).

**Step 4:** Finally, a cost comparison is conducted between the most efficient organization (MEO) and contractors wishing to bid on performing the CA in question. The cost comparison can be broken down into three basic phases, 1) planning, 2) source selection, and 3) award (1:13). Each phase will be discussed in general terms here. When necessary, certain areas will be explored in more detail in order to clarify the main issues in this thesis.

**Phase 1:** The cost comparison begins with the *planning phase*. There are multiple steps in this phase that provide the groundwork for the insource/outsource decision. The first step is to develop the performance work statement (PWS). This one of the most crucial steps in the cost comparison process. The PWS is a description of the work to be performed. This is the equivalent of a private firm identifying their transportation requirements. While the PWS doesn't state exactly how the contractor will perform the work, it does state how it will be determined the required work has been performed. This is the document that the contractor will base their bid (1:29). Various generic templates have been developed to aid in the development of PWSs. However, it should be kept in mind that each situation is different and thus each PWS should be treated and developed differently.

Once the PWS has been developed, market research is conducted. Market research is an investigation into how the private sector handles similar situations. Specifically, market research should be conducted to determine 1) the best approach for soliciting the contract, 2) identifying potential contractors, 3) identifying best business practices available, and 4) validation of the plan (1:13). Many of these steps should be occurring on a daily basis at the unit and MAJCOM level. Armed with this background information, the acquisition plan can now be developed.

At this point, the organization in question must choose MEO. It is important too note that the MEO is not the current organization. The MEO is the in-house organization with minimal civilian resources that can meet the requirements defined in the PWS. Once a decision has been made to conduct an A-76 study, either the MEO or a contractor will replace the current organization. The current organization will no longer exist. A government bid is developed based on the MEO. The costs used to develop the government bid are the basis of several arguments in this thesis and will be discussed in much more detail in Chapter III. The government bid is reviewed by an independent organization to validate its accuracy.

The final three steps of the planning phase spell out some of the details required for developing the bids. First is the terms and conditions. This step identifies key areas of contractor performance and establishes incentives for achieving or exceeding the requirements in these areas. Next is the issuance of synopsis to solicit bids from industry. Finally, wage rates are set. This completes the *planning phase* of the cost comparison step (14).

**Phase 2:** The next phase of the cost comparison step is the *source selection phase*. This phase has two steps. The first is the evaluation of proposals. This is commonly done utilizing the best value approach. That is, instead of simply looking for the cheapest alternative, the organization seeks to find the best price for a given level of customer service. Finally, a cost comparison is conducted between the in-house estimate and the industry bids. An automated costing model is used to accomplish the cost comparison (14).

**Phase 3:** The final phase of the cost comparison step is the *award phase*. This phase consists of three steps. The first is the appeals and protests. Here, bidders can challenge the results if they feel the decision was made unfairly or inaccurately. Next is the transition from the government organization to the contractor. This is often a difficult process and will be explored in some depths later in later chapters. The final step in the award phase is the contract administration phase. During this step, Quality Assurance Evaluators (QAEs) and Functional Area Chiefs (FACs) are assigned to oversee the contract (1:14-15).

The process utilized to make an in-source/outsource decision by the USAF is complex. Figure 1 contains a summary of the steps involved in this process. The average cost comparison takes around 10 months to complete (1:13). Care must be taken to ensure the USAF is getting the required service at cost savings. Otherwise, the A-76 program is not working as designed.

| Phase               | Steps   |
|---------------------|---|
| 1. Planning         | 1. Develop PWS<br>2. Market Research<br>3. Acquisition Planning<br>4. Develop MEO<br>5. Develop Government Bid<br>6. Review Government Bid<br>7. Identify Key Terms<br>8. Issuance of Synopsis<br>9. Wage Rates |
| 2. Source Selection | 1. Evaluation of Industry Proposals<br>2. Cost Comparison   |
| 3. Award            | 1. Appeals and Protests<br>2. Transition<br>3. Contract Administration  |

**Figure 1 – Cost Comparison Summary**

### **III. Methodology**

The Air Force utilizes a fully allocated cost system for costing the services it provides. Under a fully allocated cost system, a function incurs both direct and indirect costs. Direct costs are incurred as a result of the organization's operations. The organization will be assessed the full amount of these costs. Indirect costs are not directly related to the performance of the organization. Rather, they are overhead costs that the organization incurs but shares with other organizations within the firm. Thus, the organization only incurs a partial share of cost for the indirect costs (18:3-19).

The purpose of the A-76 cost comparison is to save money by reducing costs. This means the Air Force is looking to avoid some of the costs it now incurs and lower other costs if the opportunity exists to do so. Therefore, the costs of interest are those which are either reduced or eliminated through outsourcing. If a cost does not fit into one of these categories, it is not relevant to the decision to outsource a function (18:19).

Utilizing the fully allocated cost system for cost comparison purposes can produce inaccurate results. Some of the costs included will not be avoidable costs. That is, some costs included under the fully allocated system will still exist whether or not a function is contracted out. Thus, these costs are not relevant for an insource/outsource decision. The only costs that will result in cost savings are avoidable costs.

The Air Force includes eighteen different cost categories when making an outsourcing decision. Eight of these categories apply to the Most Efficient Organization (MEO). These costs and their definitions are as follows:

1. **Personnel Costs** – Includes the salaries, wages, fringe benefits, and other entitlements associated with the personnel required for the MEO (23:19). For the Air Force, this value is 132.45% times the total salaries of the employees required by the MEO. The additional 32.45% accounts for retirement, social security, and any other benefits (14:1).
2. **Material & Supply Costs** – Includes all the goods such as raw materials, parts, subassemblies, components, and office supplies required for the performance period (23:21).
3. **Other Specifically Attributable Costs** – Other personnel or material costs that might be incurred by the government operation. This can include depreciation, maintenance and repair, utilities, insurance, travel, MEO subcontracts, and other costs as applicable (23:21). The Air Force requires .7% times the personnel costs to be included for liability insurance plus .5% times the personnel costs to be included for casualty insurance to be applied if the contractor is going to be required to pay for insurance. Additionally, if the contractor or Inter-Service Support Agreement (ISSA) is going to be responsible for maintenance and repair of equipment, then the government must also include the estimated cost of maintenance and repair in the MEO estimate (14:1).
4. **Overhead Costs** – Overhead costs are the general overhead expenses associated with the in-house organization such as general and administrative overhead that is not directly incurred by the agency. Rather they are incurred based on the number of employees assigned to the organization (23:23-24).

5. **Cost of Capital** – The cost of capital is the opportunity cost associated with the money the government has tied up in capital assets (23:22).
6. **One-time Conversion Costs for conversion to the MEO** – One-time costs associated with the conversion from the government to the MEO (14:1).
7. **Additional Costs** – Any additional costs not included in the other categories (14:1).
8. **Total In-house Costs** – The total cost associated with the MEO.
9. **Contract or ISSA Price** – The total price associated with the contractor or ISSA for providing the services as outline in the Performance Work Statement (PWS) (14:1).  
Included in this cost is the contractor cost as well as 65% of the award fee. An award fee is 10% of the value of the contract paid to the contractor on a yearly basis based on good performance. Air Force guidelines require 65% of this amount be included in the contractor cost (14:2).
10. **Contract Administration** – The costs incurred for administering the contract or ISSA. The cost of this category is based on the number of personnel in the MEO (23:25-26). This category includes costs associated with salaries, benefits, office space, office supplies, utilities, and any other costs associated with contract maintenance (14:2).
11. **Additional Costs** – Any additional costs resulting from special or unusual services required. Any costs included in this category must be accompanied by supporting documentation (23:26).
12. **One-time Conversion Costs for conversion to the contractor or ISSA** – One-time costs incurred as a result of the government organization converting to the contractor or MEO (14:1). This includes the costs associated with the severance packages for



displaced government workers. Currently, this amount is 4% of the personnel costs annually (14:1-2).

**13. Gain on Assets** – If the government is able to dispose of any assets as a result of conversion to the contractor or ISSA, the proceeds from the sale should be subtracted from the contractor or ISSA costs (23:26).

**14. Federal Income Tax** – Any income tax to be paid by the contractor or ISSA will be subtracted from the contractor or ISSA cost since the taxes benefit the government (23:27).

**15. Total Contract or ISSA Costs** – The total cost associated with the contractor or ISSA providing the services described in the PWS.

**16. Minimum Cost Differential** – The minimum difference between the MEO cost and the contract or ISSA cost in order to make the decision to outsource. Usually 10% of the personnel costs associated with the MEO (23:28).

**17. Adjusted Total Cost of In-house Performance** – Same as the total in-house cost (23:28).

**18. Adjusted Total Cost of Contract or ISSA Performance** – The total cost for contractor or ISSA performance as adjusted by the conversion differential. The conversion differential is any additional adjustments to the contractor or ISSA price the cost analyst feels are necessary to ensure the accuracy of the bid (23:28).

In order to examine the appropriateness of the costs that are being included in A-76 studies, a case study of the Wright-Patterson AFB (WPAFB) A-76 study was conducted. This case study included an examination of the entire A-76 process to determine exactly how the Air Force outsourcing process was used in this situation. This

required an examination of the performance work statement (PWS) and all the relevant cost data used to make the outsourcing decision. The detailed cost data was collected by interviewing the cost analyst. An interview was conducted to determine 1) what the costs were and 2) the rationale behind using the costs.

At this point, the costs used to make the outsourcing decision (in this case the contractor was selected) were evaluated to determine their appropriateness. For any inappropriate costs, sensitivity analysis was conducted to evaluate the outcome had a different costing method been used. This demonstrated the net effect of the questionable costing method on the A-76 outcome.

In addition to possibly including costs inappropriately, it is also possible that some relevant costs have been left out of the cost comparison. Again, by interviewing the cost analyst and analyzing the cost data, an evaluation was conducted to determine if some additional costs were excluded from the decision. If some costs had been excluded, sensitivity analysis was again conducted to evaluate the result of the A-76 study had the different costing method been used.

The analysis and conclusions to the data analysis are included in Chapter 5. In addition to conclusions concerning the cost data, the overall A-76 (outsourcing) process was evaluated for how effectively it was applied. This was accomplished with some general comments comparing the method utilized by the Air Force to the method utilized by the private sector. For areas that differ, the differences were examined to evaluate their effect on the A-76 process. Similarities were addressed in the same manner.

#### IV. Data

There are 18 different costs required for the A-76 cost comparison. The definitions for these costs can be found in Chapter III. The costs included in the WPAFB base operating support (BOS) A-76 study are included in Figure 2. These are the costs prescribed by OMB pamphlet A-76 to be used when conducting a cost comparison.

| <b>In House</b>   | <b>First</b>  | <b>Second</b> | <b>Third</b> | <b>Additional</b> | <b>Total</b> |
|---|---------------|---------------|--------------|-------------------|--------------|
| 1. Personnel Costs                                      | \$899,585     | \$10,800,206  | \$10,808,252 | \$21,641,618      | \$44,149,661 |
| 2. Material & Supply Costs                              | \$5,120       | \$74,341      | \$229,790    | \$689,187         | \$998,438    |
| 3. Other Specifically Attributable Costs                | \$12,831      | \$156,055     | \$158,330    | \$323,514         | \$650,730    |
| 4. Overhead Costs                                       | \$107,950     | \$1,296,025   | \$1,296,990  | \$2,596,994       | \$5,297,959  |
| 5. Cost of Capital                                      | \$0           | \$0           | \$0          | \$0               | \$0          |
| 6. One-time Conversion Costs                            | \$0           | \$0           | \$0          | \$0               | \$0          |
| 7. Additional Costs                                     | \$0           | \$0           | \$0          | \$0               | \$0          |
| 8. Total In-House Costs                                 | \$1,025,486   | \$12,326,627  | \$12,493,362 | \$25,251,313      | \$51,096,788 |
| <b>Contract or ISSA Performance Costs</b>               |               |               |              |                   |              |
| 9. Contract or ISSA Price                               | \$833,523     | \$9,454,548   | \$9,332,855  | \$18,555,525      | \$38,176,451 |
| 10. Contract Administration                             | \$39,791      | \$486,767     | \$501,227    | \$1,047,578       | \$2,075,363  |
| 11. Additional Costs                                    | \$0           | \$0           | \$0          | \$0               | \$0          |
| 12. One-time Conversion Costs                           | \$62,708      | \$62,708      | \$62,708     | \$125,416         | \$313,540    |
| 13. Gain on Assets                                      | (\$406)       | \$0           | \$0          | \$0               | (\$406)      |
| 14. Federal Income Tax (Deduct)                         | (\$4,168)     | (\$47,273)    | (\$46,664)   | (\$92,777)        | (\$190,882)  |
| 15. Total Contract or ISSA Costs                        | \$931,448     | \$9,956,750   | \$9,850,126  | \$19,635,742      | \$40,374,066 |
| <b>Decision</b>   |               |               |              |                   |              |
| 16. Minimum Conversion Differential                     | (\$4,414,966) |               |              |                   |              |
| 17. Adjusted Total Cost of In-house Performance         | \$51,096,788  |               |              |                   |              |
| 18. Adjusted Total Cost of Contract or ISSA Performance | \$44,789,032  |               |              |                   |              |
| 19. Decision - Line 18 minus line 17                    | (\$6,307,756) |               |              |                   |              |
| 20. Contract Comparison Decision                        | Contract      |               |              |                   |              |

**Figure 2 – WPAFB A-76 Costs**

There are a total of five time periods under consideration for this A-76 study. The first period is the one-month period for September 1998 when the contract will be implemented. Each subsequent period is one year in length. Years four and five are combined in the **Additional** column. An explanation of each of the costs follows:

1. Personnel Costs – This is the cost of the personnel required to man the MEO. It includes a 32.45% charge for the benefits associated with maintaining these employees (14:1).
2. Material and Supplies – Includes office supplies and parts for the aircraft maintenance function (14:1).
3. Other Specifically Attributable costs – There are three categories of costs that have been included here. The first is insurance. Since the contractor is being required to carry insurance, the MEO must also include the cost of insurance in their estimate. This cost is .7% of personnel costs for liability insurance and .5% of all non-personnel costs for casualty insurance. Also, since the contractor is responsible for the maintenance and repair of equipment, the MEO is assessed a charge for maintenance and repair of equipment. Finally, there are two off-site facilities included in this contract. The rent and utilities for these facilities is included. A breakdown of these costs is:

Rent - \$26,511.92

Maintenance & Repair - \$256,540.78

Utilities - \$21,664.80

Insurance - \$345,843.05

Other costs - \$170.11

Total - \$650,730.66 (11:1-2)

4. Overhead Costs – This cost is 12% of the personnel costs and is the overhead charged to the MEO for supporting its employees. It accounts for overhead costs such as civilian personnel (14:1).

8. Total In-House Costs – The sum of all the costs assessed against the MEO.
9. Contract or ISSA Price – The price of the contractors bid with the addition of the award fee (14:2).
10. Contract Administration – The overhead charged to the contractor to account for the staff required to management and oversee the contract (14:2).
12. One-time Conversion Costs – The total cost resulting from the conversion from the government organization to the contractor. This includes severance packages for displaced employees (14:1-2).
13. Gain on Assets – The Air Force will be able to sell two pagers resulting in a net gain of \$406 to the government. This gain is subtracted from the contractor's bid (14:2).
14. Federal Income Tax – This is the estimated income tax to be paid by the contractor to the government (14:2).
15. Total Contract or ISSA Costs – The sum total of all the costs included in the contractor or ISSA cost section.
16. Minimum Cost Differential – The minimum difference between the contractor price and the government price in order to make the decision to outsource. Here, it is 10% of the personnel costs for the MEO (14:2).
17. Adjusted Total Cost of In-House Performance – Same as line 8.
18. Adjusted Total Cost of Contract or ISSA Performance – Total cost of the contractor or ISSA as adjusted for any additional factors not accounted for previously (14:1-2).
19. Decision – The difference between the Adjusted Total Cost of In-House Performance and Adjusted Total Cost of Contract or ISSA Performance.

20. Contact Comparison Decision – Since the difference between the contractor price and the MEO price was greater than the Minimum Cost Differential, the decision was made to go with the contractor.

## **V. Analysis and Conclusions**

### **Cost Analysis**

An analysis of the cost data identified several questionable areas. First, by charging the MEO for insurance, the MEO's bid is inflated incorrectly. The government is a virtual insurer and does not pay for insurance (14:1-2). Therefore, this is a cost not born by the MEO. Thus, the inclusion of this cost only inflates the MEO bid. The appropriate way to handle this cost would be to evaluate the cost of past mishaps and determine the appropriate amount to charge the MEO.

Second, the One-time Conversion Costs are too low. The current severance factor of 2%-4% does not accurately reflect the true cost that has been associated with transitioning from the current military organization to the contractor. It is estimated that these costs are approaching \$1 million. The high actual one-time conversion cost is primarily as a result of the large number of personnel who opted for the early retirement (14:2). Clearly, by understating this cost, the contractor or ISSA cost will be understated. A better method for calculating the actual net change in personnel costs would be to subtract the reduction in direct compensation from the increase in retirement costs and severance/separation costs. This will give the costs that will be avoided by outsourcing.

An additional area of concern is the 32.45% that is multiplied by an employee's salary to determine the cost of the benefits incurred by this employee. The 32.45% was established when the majority of federal employees were in the civil service retirement system. Now, however, most employees are in the federal employee retirement system

which is significantly less expensive. It is estimated that a charge of 25% is more appropriate (14:1).

While each of these costing discrepancies may appear small and insignificant at first, their combined effect can have a dramatic impact on the outcome of the A-76 study. The cost of insurance should not be charged to the MEO, thus this cost was removed from the cost comparison. This results in a reduction in the MEO costs of \$345,843. The effects of this change are reflected in Figure 3 below.

| <b>In House</b>   | <b>First</b>  | <b>Second</b> | <b>Third</b> | <b>Additional</b> | <b>Total</b> |
|---|---------------|---------------|--------------|-------------------|--------------|
| 1. Personnel Costs                                      | \$899,585     | \$10,800,206  | \$10,808,252 | \$21,641,618      | \$44,149,661 |
| 2. Material & Supply Costs                              | \$5,120       | \$74,341      | \$229,790    | \$689,187         | \$998,438    |
| 3. Other Specifically Attributable Costs                | \$5,391       | \$71,910      | \$73,779     | \$153,359         | \$304,439    |
| 4. Overhead Costs                                       | \$107,950     | \$1,296,025   | \$1,296,990  | \$2,596,994       | \$5,297,959  |
| 5. Cost of Capital                                      | \$0           | \$0           | \$0          | \$0               | \$0          |
| 6. One-time Conversion Costs                            | \$0           | \$0           | \$0          | \$0               | \$0          |
| 7. Additional Costs                                     | \$0           | \$0           | \$0          | \$0               | \$0          |
| 8. Total In-House Costs                                 | \$1,018,046   | \$12,242,482  | \$12,408,811 | \$25,081,158      | \$50,750,497 |
| <b>Contract or ISSA Performance Costs</b>               |               |               |              |                   |              |
| 9. Contract or ISSA Price                               | \$833,523     | \$9,454,548   | \$9,332,855  | \$18,555,525      | \$38,176,451 |
| 10. Contract Administration                             | \$39,791      | \$486,767     | \$501,227    | \$1,047,578       | \$2,075,363  |
| 11. Additional Costs                                    | \$0           | \$0           | \$0          | \$0               | \$0          |
| 12. One-time Conversion Costs                           | \$62,708      | \$62,708      | \$62,708     | \$125,416         | \$313,540    |
| 13. Gain on Assets                                      | (\$406)       | \$0           | \$0          | \$0               | (\$406)      |
| 14. Federal Income Tax (Deduct)                         | (\$4,168)     | (\$47,273)    | (\$46,664)   | (\$92,777)        | (\$190,882)  |
| 15. Total Contract or ISSA Costs                        | \$931,448     | \$9,956,750   | \$9,850,126  | \$19,635,742      | \$40,374,066 |
| <b>Decision</b>   |               |               |              |                   |              |
| 16. Minimum Conversion Differential                     | (\$4,414,966) |               |              |                   |              |
| 17. Adjusted Total Cost of In-house Performance         | \$50,750,497  |               |              |                   |              |
| 18. Adjusted Total Cost of Contract or ISSA Performance | \$44,789,032  |               |              |                   |              |
| 19. Decision - Line 18 minus line 17                    | (\$5,961,465) |               |              |                   |              |
| 20. Contract Comparison Decision                        | Contract      |               |              |                   |              |

**Figure 3 – Costs Without Insurance Charge**

The decision remains to contract the function. However, the MEO bid is reduced to \$50,750,497.



The next cost to consider is the 2-4% charged as a one-time conversion cost. It is estimated that the true cost of the severance packages and the costs associated with the early retirements taken as a result of the A-76 study is already over \$1 million and the contract hasn't entered into the first period as of yet. Thus, this cost could be considerably more than appears to be at this point. A good approach to deal with this issue would be to evaluate the one-time conversion costs associated with the A-76 studies to date throughout the Air Force and determine a more realistic way of establishing a fair value for this cost. In the past it appears that contractors have had a great deal of input into how this cost is determined (14:1-2). While the cost is charged to the contractor, it is the government that needs to establish a more accurate way of determining the one-time conversion costs. To evaluate the effects of understating this cost, the total cost for the entire evaluation period were recalculated utilizing sensitivity analysis to analyze the effects of higher values for one-time conversion costs. Figure 4 contains the summary information showing the effects of adjusting the one-time conversion costs by various percentages. The amounts chosen were 1) estimated costs equal to actual costs, 2) actual costs are 50% more, 3) actual costs are 100% more, and so forth as indicated in Figure 5.2. Note that the insurance charges were left out of this sensitivity analysis.

|  | 0%            | 50%           | 100%          | 150%          | 200%          |
|--|---------------|---------------|---------------|---------------|---------------|
| <b>12. One-time Conversion Costs</b>                           | \$313,540     | \$470,310     | \$627,080     | \$783,850     | \$940,620     |
| <b>16. Minimum Conversion Differential</b>                     | (\$4,414,966) | (\$4,414,966) | (\$4,414,966) | (\$4,414,966) | (\$4,414,966) |
| <b>17. Adjusted Total Cost of In-house Performance</b>         | \$50,750,497  | \$50,750,497  | \$50,750,497  | \$50,750,497  | \$50,750,497  |
| <b>18. Adjusted Total Cost of Contract or ISSA Performance</b> | \$44,789,032  | \$44,945,802  | \$45,102,572  | \$45,259,342  | \$45,416,112  |
| <b>19. Decision - Line 18 minus line 17</b>                    | (\$5,961,465) | (\$5,804,695) | (\$5,647,925) | (\$5,491,155) | (\$5,334,385) |
| <b>20. Contract Comparison Decision</b>                        | Contract      | Contract      | Contract      | Contract      | Contract      |

**Figure 4 – Costs Adjusted for Insurance and Conversion Costs**

The final cost of concern is the 32.45% used to determine the value of the employee benefits for the MEO. As stated earlier, it has been estimated that a figure of 25% is more accurate (14:1). To conduct the sensitivity analysis of this cost, the personnel cost for the MEO was recalculated using various percentages between 25% and 32.45% as indicated in Figure 5. Again, note that the insurance charge was not included in the MEO costs.

|   | 25%           | 27%           | 29%           | 31%           | 32.45%        |
|---|---------------|---------------|---------------|---------------|---------------|
| 1. Personnel Costs                                      | \$41,666,347  | \$42,333,008  | \$42,999,670  | \$43,666,331  | \$44,149,661  |
| 16. Minimum Conversion Differential                     | (\$4,414,966) | (\$4,414,966) | (\$4,414,966) | (\$4,414,966) | (\$4,414,966) |
| 17. Adjusted Total Cost of In-house Performance         | \$48,267,183  | \$48,933,844  | \$49,600,506  | \$50,267,167  | \$50,750,497  |
| 18. Adjusted Total Cost of Contract or ISSA Performance | \$44,789,032  | \$44,789,032  | \$44,789,032  | \$44,789,032  | \$44,789,032  |
| 19. Decision - Line 18 minus line 17                    | (\$3,478,151) | (\$4,144,812) | (\$4,811,474) | (\$5,478,135) | (\$5,961,465) |
| 20. Contract Comparison Decision                        | In-House      | In-House      | Contract      | Contract      | Contract      |

**Figure 5 – Costs Adjusted for Insurance and Personnel Costs**

It is very interesting to note that if a benefit rate between 25-27% were used, the results of the A-76 study would change in favor of the MEO. This underscores the importance of ensuring the correct rate is used. It must be determined if the current rate is too high. If it is in fact too high, the problem must be corrected in order to ensure the accuracy of the outsourcing process.

An additional cost category that isn't included in the A-76 process is the cost for conducting the competition (30:8). It is difficult to estimate exactly what this cost is. However, given that the process takes an average of 664 days to the initial decision and 810 days until completion, these costs could be extensive (16:x). The cost of conducting the A-76 will reduce the overall savings realized from the competition. These costs

should be amortized over the life of the contract and should be included to establish the overall effectiveness of the outsourcing initiative.

### **General Observations**

The Air Force has attempted to establish a systematic approach in an effort to ensure the accuracy of the A-76 process. One of the key steps taken by the Air Force is identification of the MEO. This forces organizations to reengineer their transportation processes to determine if they can be accomplished more efficiently. One area for improvement would be to have units perform this process reengineering well before an A-76 study is conducted. If a unit can be organized and run more efficiently, then it should be. An A-76 study shouldn't be required to force units to improve their performance. Rather, the unit should already be making every effort to ensure they're running as efficiently as possible. A reengineering study conducted as a prelude to an A-76 study is a good solution to this problem.

In addition to developing a MEO earlier, the Air Force would also benefit from implementing the MEO to establish if it is, in fact, more efficient than the current organization. This would perform several critical functions. First, it would establish the fact that the current in-house organization is as efficient as it can be. Second, implementing the MEO may identify additional areas for improvement or cost savings. There may be less expensive or more efficient ways to perform the services required, but under the current process, the Air Force has failed to identify any additional opportunities.

The Air Force cost model fails to identify specific costs as direct, indirect (overhead), and avoidable. Identifying which costs are avoidable and which are not has

several benefits. To begin with, by identifying costs in this manner, the Air Force will identify areas for potential cost savings whether or not the function is outsourced. Thus, classifying costs in this manner can help make the current processes more efficient. Additionally, the costs used form the basis of a good outsourcing decision. Careful identification and classification of costs in this manner will ensure the appropriate information is available for making the decision. Failure to correctly identify all relevant costs can lead to a bad decision. Finally, by classifying costs in this manner the Air Force will be able to determine if it is more cost efficient to outsource. If it is more cost efficient, it will be possible to establish why. The source of the cost savings will be identified.

Another problem with the current Air Force cost model is that it estimates cost savings in a questionable manner. Cost savings are based on the MEO cost versus the contractor/ISSA cost. The problem is that actual savings will be the difference between the cost of the current operation versus either the MEO or contractor price (whichever is selected). A much more accurate method for estimating cost savings would be to establish which costs are avoidable under the various options. The total amount of the costs identified as avoidable should form the basis of the cost savings estimate.

Simply determining estimated cost savings is not enough. Currently, cost savings estimates are assumed to be actual savings figures (30:8). While the actual cost of the contract is reported, savings estimates aren't verified. No effort is made to ensure the Air Force has saved the amount that was originally projected. These savings estimates are used in future year defense budget projections and are being counted on for funding force modernization initiatives (3:2). If the actual savings aren't as big as anticipated, serious

problems will surface in time. The expected money won't be available for modernization. In fact, when actual savings have been checked, they have often been less than expected. There have even been instances when the contracted work has been more expensive after privatization (30:8). A look at several specific cases where costs were monitored revealed that the DoD actually paid 10%-30% more than the expected cost savings (5:5).

In addition to posing future budget problems, not tracking actual savings makes determining the reasons for the savings difficult to determine. It could be that most of the savings is simply a result of reducing the force structure. However, without accurate cost data after implementation of the study results, this is difficult to evaluate (30:5-6). The primary reason for this problem is the DoD simply does not have the processes in place to collect and track this kind of information (30:6). Units are required to report the cost of the contracted function annually and a function can be brought back in-house if costs get unreasonably excessive (1:3). However, it is widely held that the actual cost of the function does not matter. Rather, reporting the cost is simply done because it is required. Even if the function is more expensive after contracting it out, it is believed no effort will be made to bring the function back in-house (14:1). Even if the Air Force desired to bring a function back in-house, it is extremely difficult to do (1:10). The A-76 process does not give any clear guidance for bringing a function back in-house.

Another area for improvement is the timing of many of the A-76 study processes. One of the first steps in the A-76 process is to develop a Performance of Work Statement (PWS) that identifies the requirements of the function being outsourced. In the case of WPAFB, the PWS was a well-crafted document that identified, in detail, the expected

customer service level. However, every unit should already have a set of clearly defined customer service requirements and understand the cost associated with meeting this level of customer service. Also, the MEO identifies the government's most efficient organization that can provide the necessary level of customer service. The fact that the outsourcing candidate hasn't already reorganized into the MEO on its own suggests the reason why the function is such a good candidate for outsourcing. Units should already be striving to be as efficient as possible. Otherwise, these organizations will continue to remain a ripe and justified target for outsourcing.

Along this line, it is also interesting to note that during the market research phase of the outsourcing process, functional areas identify best business practices from commercial firms. However, Air Force personnel should constantly be working to identify best business practices and implement them whenever applicable. This type of management should not be limited to the A-76 process. All Air Force units should constantly be working to identify best business practices in an effort to make their organizations more efficient. If units continue to fail to seek out more efficient ways to operate, they will not be able to compete with commercial organizations.

### **Future Research**

The A-76 process has many areas in need of further investigation. To begin with, there are several cost issues that would benefit from additional investigation. Both the 2%-4% one-time conversion charge and the 32.45% employee overhead charge need to be reexamined to verify their accuracy or establish a more accurate method of assessing these charges.

Another area that requires further investigation is the issue of savings. The Air Force needs to investigate the actual savings (if any) resulting from the many A-76 studies that have been conducted to date. This will serve several purposes. First, it will ensure that the Air Force is saving money. Also, it will identify areas where the process has been most effective so the Air Force can learn from its successes. This will also identify areas where outsourcing has been less than effective. Here too the Air Force can learn from its experience to improve the process in future outsourcing initiatives. Finally, verifying the cost savings will ensure the cost savings estimates used for future modernization are accurate. This will prevent future budget shortfalls due to the failure of outsourcing initiatives to realize the anticipated savings.

### **Summary**

As long as the Air Force continues to turn to outsourcing, the A-76 process will be vital for achieving the desired success. Currently, it appears that the Air Force has some room for improvement with the A-76 process. The WPAFB A-76 study conducted to determine whether or not various support functions should be outsourced provided critical insight into how the process is applied. More work needs to be done to ensure the maximum benefit is realized from these efforts. Some of the costs included need to be reevaluated to ensure their accuracy. Also, since overall cost reduction is the goal of outsourcing, these savings must be verified to ensure the Air Force is saving the money it expects to. This will help guarantee that actual savings exist and can be used for force modernization. Making these improvements will provide the Air Force and ultimately the DoD with a valuable tool for maintaining its competitive advantage despite continued cuts in funding.

### Bibliography

1. Air Force Logistics Management Agency. Outsourcing Guide for Contracting. Project Number LC9608100. Maxwell AFB, Gunter Annex, AL, June 1996.
2. Air Force Logistics Management Agency. Outsourcing of Transportation Functions. AFLMA Final Report LT9702203. Maxwell AFB, Gunter Annex, AL, October 1997.
3. Armed Forces Information Service. "Improving the Combat Edge Through Outsourcing," Defense Issues: 11, Number 30, March 1996.  
[www.defenselink.mil/i80/cgi](http://www.defenselink.mil/i80/cgi).
4. Bowman, Robert J. "A Guide to Logistics Outsourcing." Distribution, 96: 34-42 (October 1997).
5. Brandt, Duane E. Privatization: Curse or Cure. U.S. Army War College, Carlisle Barracks PA, April 1996.
6. Camm, Frank. Expanding Private Production of Defense Services. Santa Monica CA: RAND Corporation, 1996.
7. Cassidy, William B. "A Guide to Logistics Outsourcing," Distribution 96: 80-84 (July 1997).
8. Collings, Colonel Michael A. Chief, Air Force Office of Outsourcing and Privatization. "Outsourcing and Privatization." Address to AFA Symposium, Colorado Springs CO, 24 May 1996. [www.aef.org/cs5.html](http://www.aef.org/cs5.html)
9. Department of the Air Force. 1997 United States Air Force LONG-RANGE PLAN: Summary. Washington DC: HQ USAF, 20 May 1997.
10. Department of the Air Force. "Air Force Outsourcing and Privatization Program," White Paper: March 1996.
11. Department of the Air Force. "Cost Comparison of In-House vs. Contract or ISSA Performance." Aeronautical Systems Center, Wright Patterson AFB OH. 1 Oct 97: 2 pages.
12. Department of Defense. Defense Reform Initiative. 8 pages. WWWeb, <http://www.defenselink.mil/pubs/dodreform>, February 24, 1998.
13. Eggers, William D. Rightsizing Government: Lessons From America's Public Sector Innovators. How to Guide #11. Los Angeles CA. Reason Foundation, January 1994.
14. Hall, Max. Aeronautical Systems Center, Wright Patterson AFB OH. Personal Interview 20 July 1998.



15. Horowitz, Rose. "Companies turn to third-party logistics to gain control of inbound shipments," Traffic World 13: 28-30 (June 24, 1997).
16. Keating, Edward G. Cancellations and Delays in Completion of Defense A-76 Cost Comparisons. Contract DAW01-95-C0059/T001. Santa Monica CA: RAND Corporation, 1997.
17. Lear-Olimpi, Michael. "Taking it Outside," Distribution, 96: 40-43 (September 1997).
18. Martin, Lawrence. How to Compare Costs Between In-House and Contracted Services. How to Guide #4. Los Angeles CA: Reason Foundation, March 1993.
19. Mathews, William. "Jobs On the Line/Privatization Should Save Money, But At What Cost?" The Air Force Times, 16 December 1996:12.  
[www.com.com/mem/archives/airforce/1996/af1216no.htm](http://www.com.com/mem/archives/airforce/1996/af1216no.htm)
20. Meachum, Marvin. "No matter how they price it, logistics providers say they must first understand the true costs," Traffic World, 16: 30-33 (June 24, 1996).
21. Muller, E. J. "Conquering the Global Market," Distribution, 92: 32-40 (October 1993).
22. Nicosia, Joe. "Five Common Mistakes Shippers Make When Outsourcing Their Logistics," Traffic World 16: 36 (June 24, 1996).
23. Office of Management and Budget. Circular A-76 Performance of Commercial Activities. Washington DC, March 1996.
24. Prahalad, C. K. and G. Hamel, "The core competence in the corporation." Harvard Business Review: 79-91 (May-June 1990). <http://ii51.uwaterloo.ca/MOT-w97/wk5-a.html>.
25. Saccomano, Ann. "Assets, Information or Both," Traffic World 251: 24-27 (July 21, 1997).
26. "Contract Logistics: Pare it Down, Spell It Out," Traffic World, 13: 24-28 (June 24, 1996).
27. "How much for that 3PL in the window?" Traffic World 251: 29 (July 21, 1997).
28. United States Government Accounting Office. Base Operations Challenges Confronting DoD as It Renews Emphasis on Outsourcing. Washington DC, March 1997.

29. United States Government Accounting Office. Defense Infrastructure. GA01HR-97-7; Washington DC, February 1997.
30. Warren, David R. Director, Defense Management Issues, National Security and International Affairs Division, GAO. "Challenges Facing DoD as It Attempts to Save Billions in Infrastructure Costs," Testimony Before the Subcommittee on Readiness, Committee on National Security, House of Representatives. Washington DC, 12 March 1997.

### Vita

Lt Kovich was born on 21 November 1971 in Lawrence, Kansas. He graduated from Center Senior High School in 1990 and entered undergraduate studies at Avila College in Kansas City, MO. He graduated with a Bachelor of Arts degree in Mathematics in May 1994. He received his commission on 17 March 1995 upon graduation from Officer Training School.

His first assignment was at McConnell AFB as a transportation officer. While assigned to McConnell AFB, he deployed as the 4409<sup>th</sup> transportation flight commander at Riyadh AB, KSA. In May 1997, he entered the School of Logistics and Acquisition Management, Air Force Institute of Technology.

Permanent Address: 1255 29<sup>th</sup> Street N.E.  
Cedar Rapids, IA 52402

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